

# CURRICULUM VITAE

**ABHILASH JAYAPRAKASH NAIR**

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## **CAREER OBJECTIVE:**

To pursue a highly rewarding career, seeking for a job in challenging and healthy work environment demanding all my skills and efforts to adapt and explore myself in different fields and realize my potential where I get the opportunity for continuous learning while fulfilling Organizational goals.

## **ACADEMIC QUALIFICATION:**

2013 – 2015

**M.Tech Automotive Engineering**

Amrita Vishwa Vidyapeetham, Coimbatore

*CGPA: 8.05*

2009 – 2013

**B.E. Mechanical Engineering**

Anna University, Chennai

*CGPA: 7.66*

2007 - 2009

**All India Senior School Certificate**

**Examination**

Central Board of Secondary Education

*88.4%*

2006 -2007

**All India Secondary School Examination**

Central Board of Secondary Education

*87.8%*

### **COMPUTER PACKAGES:**

Modeling package	Pro E, CATIA, SolidWorks
Analysis package	ANSYS
Programming language	C++
MS Office	MS Word, Excel, Powerpoint

### **VITAL ABILITIES:**

- Adaptable and a quick learner, possess skills to work under pressure
- Proficiency in grasping new concepts quickly and utilizing it in a productive manner
- Believe in continuous learning and an innovative approach

### **TECHNICAL EXPERIENCE:**

Worked as a Project Intern in R&D Division of Greaves Cotton Ltd, Aurangabad with exposure in

- Development of 3-wheeler automotive engines from BS-III to BS-IV
- Development of genset engines from CPCB-I to CPCB-II
- Engine dynamometer tests
- Dilute emission tests

### **PROJECT WORK:**

*During Post Graduation*

- **Emission Robustness of 510cc engine for 3-Wheeler application**

Performed successfully as a four member team at Automotive Engine Business – R&D Division Greaves Cotton Ltd. Aurangabad.

Implementation costs were kept to minimum without compromising the vehicle packaging by In-cylinder emission reduction strategies of Static Injection Timing and Swirl Ratio.

Working as a Project Intern, I planned, scheduled and ran dynamometer tests and reported the results to my team.

Together achieved HC+NO<sub>x</sub> emission reduction by a margin of 21.6% from the baseline emission and 16.2% decrease from the BS-III limit. The PM level dropped by 26% from the BS-III limit.

### ➤ **Head Gasket Failure Analysis**

Aimed at comparing various commercially available stopper designs, which take approximately 60-80% of the stress due to the bolt loading.

Accomplished structural analyses of head gaskets under various loading conditions of engine operation by means of the technique of numerical simulation used by Chang-Chun Lee et al, 2005.

Responsible for creating the Finite Element Models of various designs and their analysis by following the documentation of SolidWorks and ANSYS.

Enriched myself to use these tools to effectively yield a comparative analysis report by keeping the minimum contact pressure as the criterion of interest.

### *During Graduation*

### ➤ **Development and Fabrication of a Simplified Continuously Variable Transmission**

Aimed at reducing the complex, costly, high wear and tear prone character of CVTs, by the application of a single cylinder variable displacement pump and a hydraulic motor.

Experimental analysis was conducted on the working model made by the two member team.

Solely responsible for the use of Pro E as the designing package, for which analysis was done in Autodesk Simulation Multi-Physics.

### ➤ **Design and Optimization of Robotic Fixtures and Related Equipment for Insert Placing**

Completed as a four member team at Hyundai Mobis India Ltd. Chennai.

There existed a necessity for the improvement of the existing process as the method used was time consuming and exhausted man labor. The brainstormed robotic fixture reduced the overall down time of production, thereby eliminating the present change over and insert replace time.

Responsible for installing the support elements such as spring and insert collection tray.

Together achieved a whopping 4956 component increase per year in the productivity schedule.

### **PERSONAL DETAILS:**

Date of Birth	:	July 11, 1991
Father's Name	:	P.V. Jayaprakash
Marital Status	:	Single
Languages Known	:	English, Malayalam, Tamil, Hindi, French & Arabic